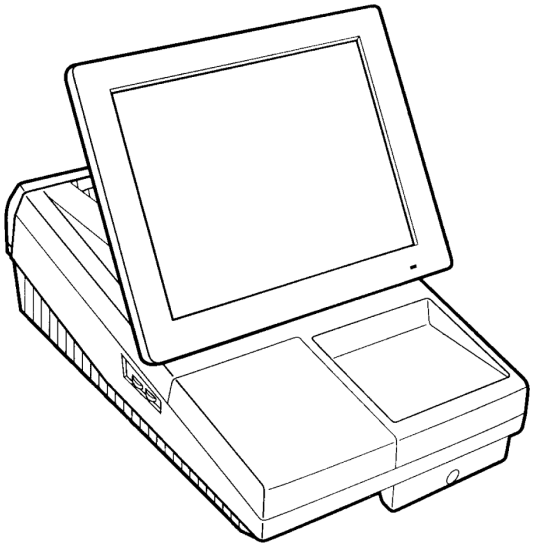
SHARP INSTALLATION MANUAL

CODE : 00ZUP5900VIME



POS TERMINAL

MODEL UP-5900

("V/VK" version)

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Parts marked with "⚠" are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

SHARP CORPORATION

This document has been published to be used for after sales service only.
The contents are subject to change without notice.

BATTERY DISPOSAL

Contains Nickel Metal Hydride Battery. Must be Disposed of Properly.
Contact Local Environmental Officials for Disposal Instructions.

CAUTION

RISK OF EXPLOSION IF BATTERY IS REPLACED
BY AN INCORRECT TYPE.
DISPOSE OF USED BATTERIES ACCORDING
TO THE INSTRUCTIONS.

AVOID: SHORT-CIRCUITING THE BATTERY TERMINALS.
KEEP THE BATTERY AWAY FROM FIRE.

∗ WHEN DISPOSING THE BATTERY, FOLLOW THE LOCAL
RULES AND REGULATIONS.

“BATTERY DISPOSAL”

THIS PRODUCT CONTAINS NICKEL-METAL HYDRIDE BATTERY.
THIS BATTERY MUST BE DISPOSED OF PROPERLY.
REMOVE THE BATTERY FROM THE PRODUCT AND CONTACT FEDERAL OR STATE ENVIRONMENTAL AGENCIES FOR INFORMATION ON RECYCLING AND DISPOSAL OPTIONS.

“TRAITEMENT DES ACCUMULATEUR USAGÉS”

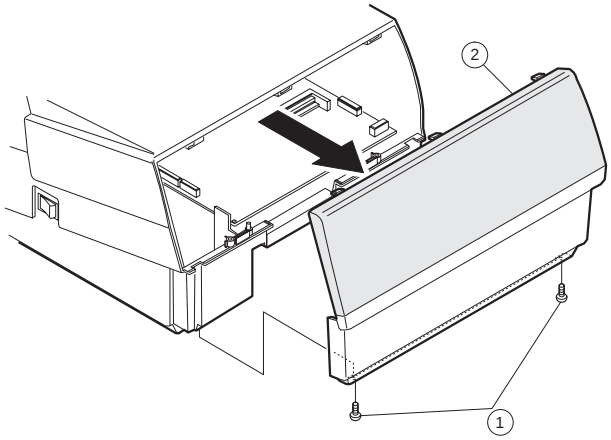
CE PRODUIT CONTIENT UN ACCUMULATEUR À NICKEL MÉTAL HYDRIDE.
CET ACCUMULATEUR USAGÉ DOIT ÊTRE TRAITÉ CORRECTEMENT.
ENLEVEZ L’ ACCUMULATEUR DU PRODUIT ET PRENEZ CONTACT AVEC VOTRE AGENCE ENVIRONNEMENTALE LOCALE POUR DES INFORMATIONS SUR LES MÉTHODES DE RECYCLAGE ET DE TRAITEMENT.

Precautions

- Before installation, be sure to turn off the power.
- Use gloves to protect your hands from being cut by the angle and the chassis.
- Connect all the cables securely. When connecting or disconnecting the cables, be careful not to apply stress to the cables. (It may cause disconnection.)
- Ground the human body to prevent against troubles and dust adhesion to the LCD by static electricity. When assembling the LCD, use a discharge blower to prevent against dust intrusion.
- Be careful of the high voltage of the inverter PWB transformer.
- Place the top cabinet with LCD panel side down, Please use a clean dust free clothe to protect the touch panel and LCD area.

1. Removing the Rear display filter

1) Remove the two Screws ①.
2) Remove the Rear display filter ②.



2. Replacing the Rear display filter

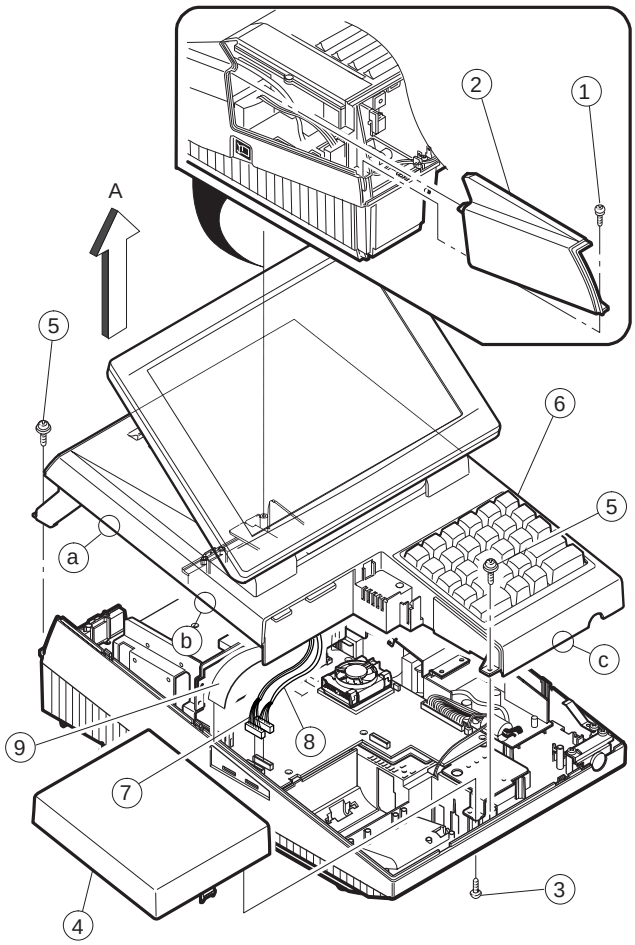
Install the Rear display filter in the reverse order of removing.

3. Removing the Top cabinet

1) Remove the Screw ①.
2) Remove the Side cabinet ②.
3) Remove the Screw ③.
4) Remove the Printer lid ④.
5) Remove the two Screws ⑤.
6) Remove the Top cabinet ⑥.
   a) Release the latches ⓐ, ⓑ and ⓒ in that order. Slide the upper cabinet to the right and release the latch on the right.
   b) Lift the top cabinet and put it straight in the direction of arrow A. (Be careful not to pull the cable between the LCD I/F PWB-Key pad PWB of the top cabinet and the MAIN PWB of the Bottom cabinet.)
   c) Pull and remove the following cables between the LCD I/F PWB of the top cabinet and the MAIN PWB of the Bottom cabinet.

- LCD Cable ⑦ : MAIN PWB-LCD unit : CN31
- Touch panel cable ⑧ : MAIN PWB-Touch panel PWB : CN34
- Key pad cable ⑨ : MAIN PWB : CN23

∗Key pad : UP-C30PK is optional.

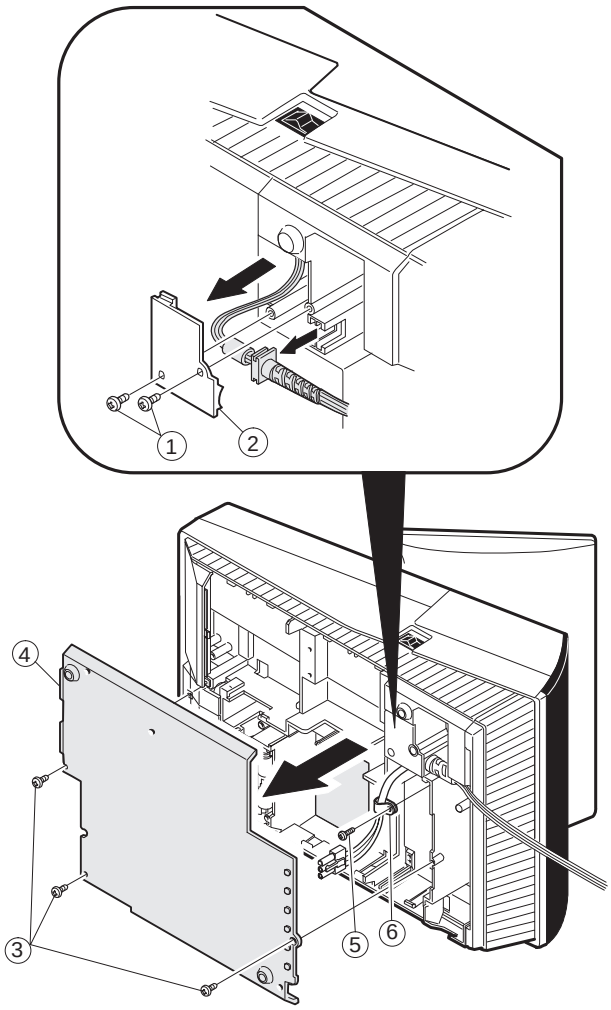


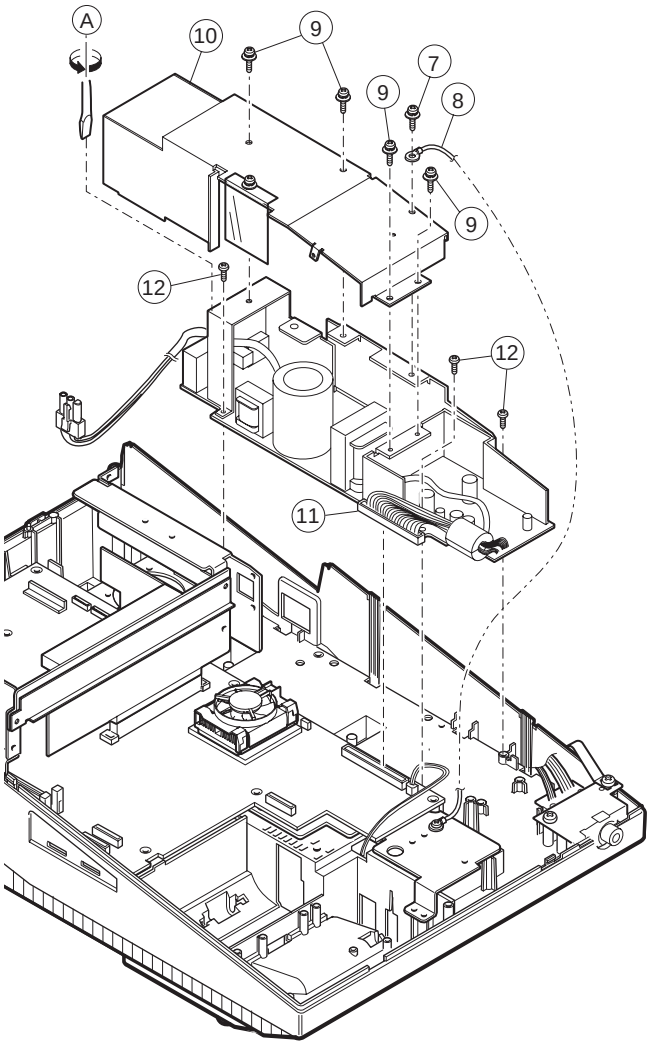
4. Replacing the Top cabinet

Install the top cabinet in the reverse order of removing. Before installing, make sure that each connector is connected securely.

5. Removing the power supply unit and AC cord

1) Remove the two screws ①.
2) Remove the AC cord cover ②.
3) Remove the three screws ③.
4) Remove the bottom plate ④.
5) Remove the screw ⑤ and cable holder ⑥.
6) Remove the power supply unit and AC cord.
   a) Remove the screw ⑦ and the earth wire ⑧.
   b) Remove the four screws ⑨.
   c) Remove the power supply cover ⑩.
   d) Remove the power supply cable ⑪.
   e) Use a minus screwdriver Ⓐ to looser the AC cord fixing screws (2 pcs.) of the power supply unit.
   f) Remove the three screws ⑫.





6. Replacing the power supply unit and AC cord

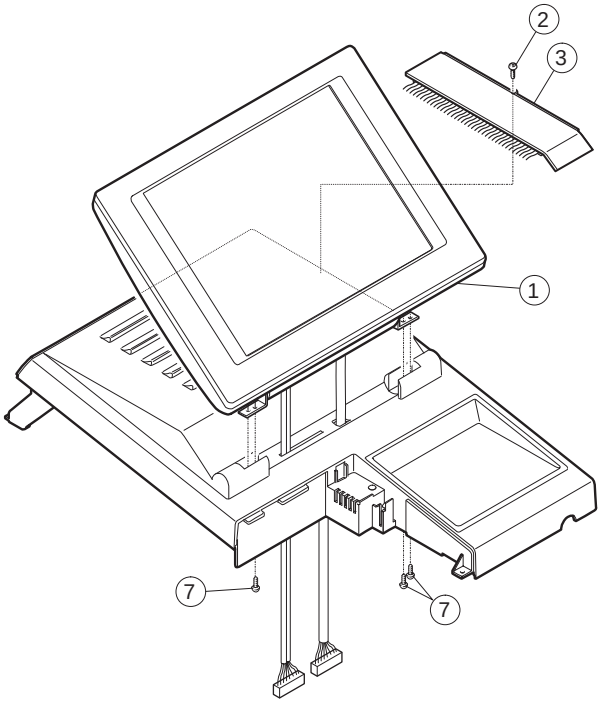
Install the in the power supply unit and AC cord in the reverse order of removing.

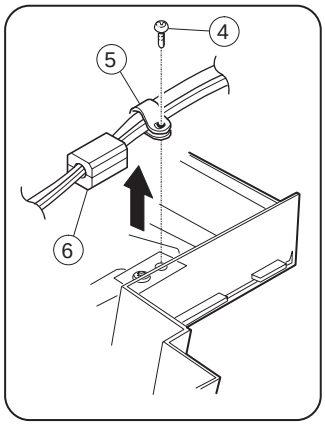
Before installing, make sure that each connector is connected securely.

∗When connecting the AC cord to the power supply unit in assembly, tighten with the torque of 3 kg/cm ±1 kg/cm.

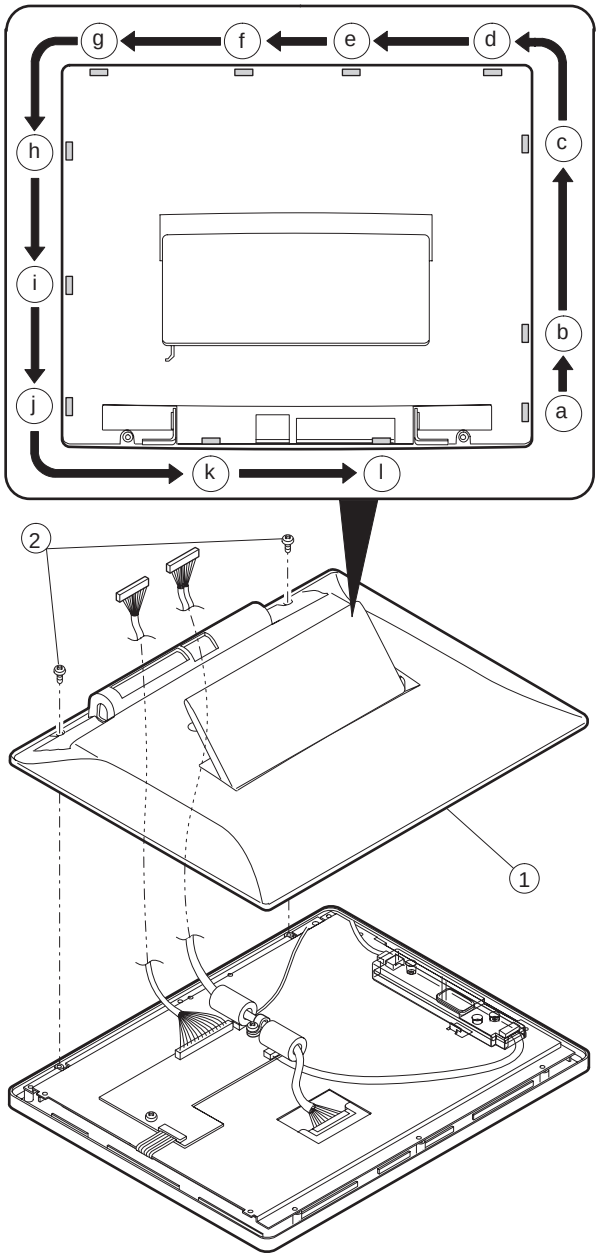
7. Remove the LCD unit

1) Remove the LCD unit ①.
   a) Remove the screw ②.
   b) Remove the tilt cover ③.
   c) Remove the screw ④ and cable holder ⑤.
   d) Remove the core ⑥.
   e) Remove the three screws ⑦.





2) Remove the LCD rear cabinet ①.
   a) Remove the two Screws ②.
   b) Remove the pawls a to ① of the LCD rear cabinet ① in that order.



Caution: Please do not place the LCD unit on hard surfaces, take special care not to place the LCD unit on any surface that may cause damage to the unit.

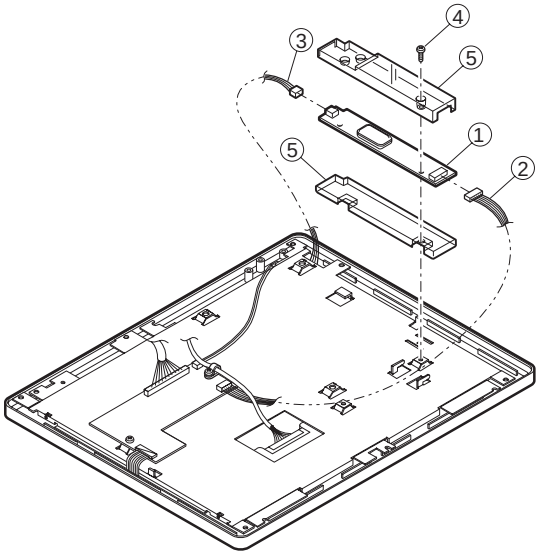
3) Remove the Inverter PWB ①.

a) Remove the Inverter cable ②.

b) Remove the CCFT cable ③.

c) Remove the screw ④.

d) Remove the Inverter cover ⑤.



4) Remove the Touch panel PWB unit ①.

a) Remove the LCD cable(40P) ②.

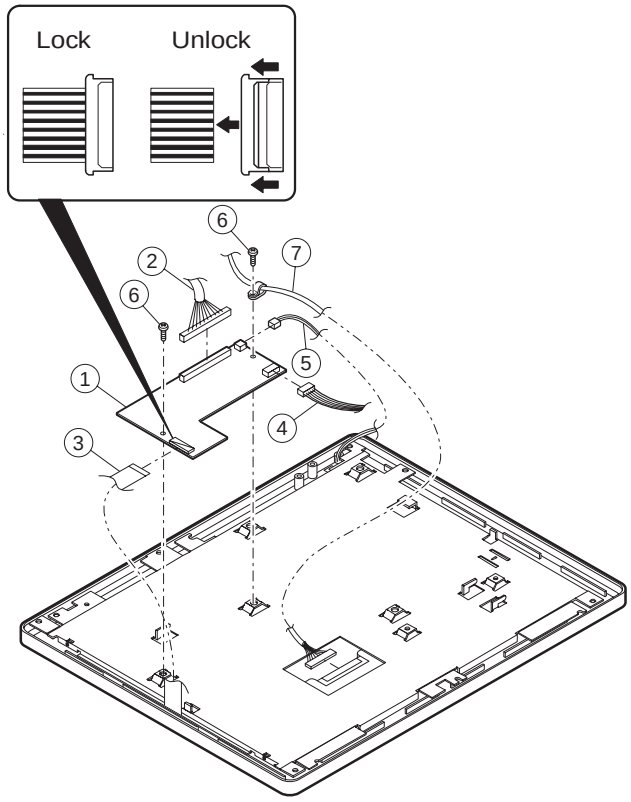
b) Remove the Touch panel cable ③.

c) Remove the Inverter cable ④.

d) Remove the LED cable ⑤.

e) Remove the two Screws ⑥.

f) Remove the LCD cable (29P) ⑦.



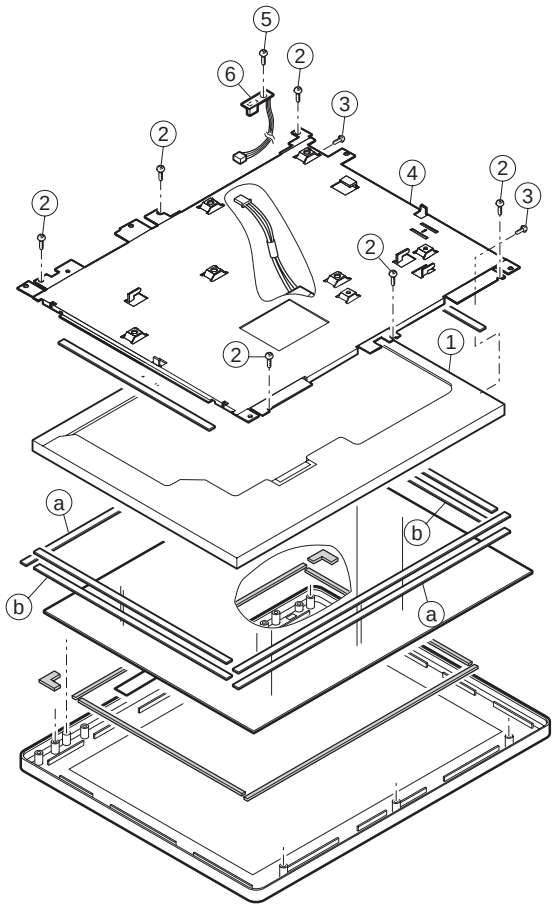
5) Remove the LCD ①.

a) Remove the six screws ②.

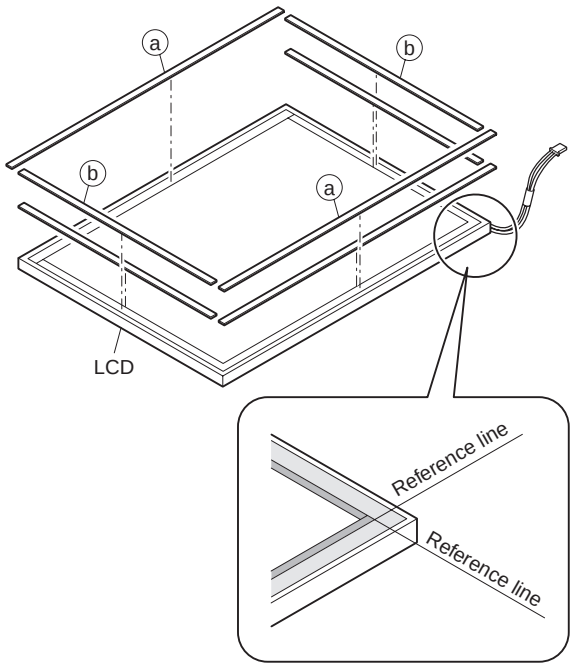
b) Remove the two screws ③.

c) Remove the LCD plate ④.

d) Remove the screw ⑤ and LED PWB ⑥.



∗Reference for attaching LCD GUM A : ⓐ to LCD GUM B : ⓑ



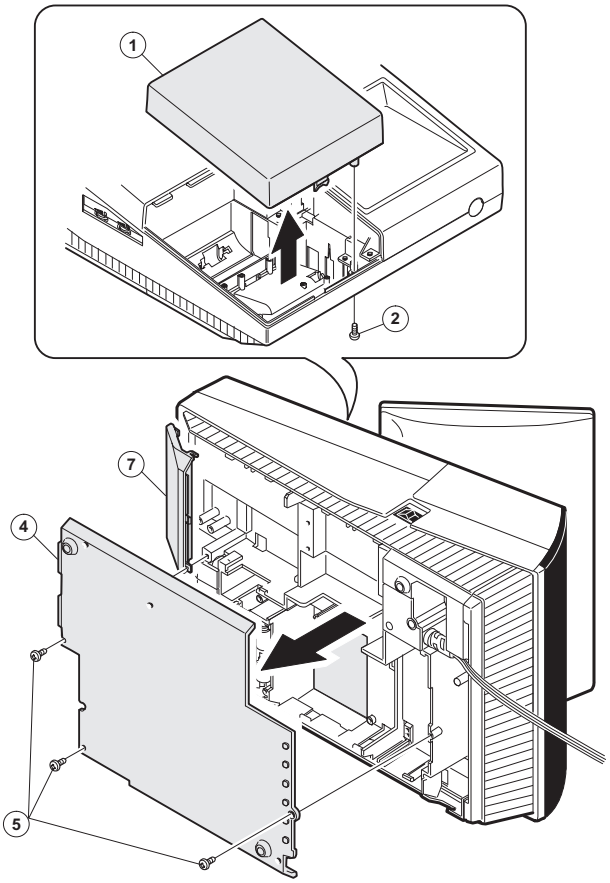
8. Replacing the LCD unit

Install the LCD unit in the reverse order of removing.

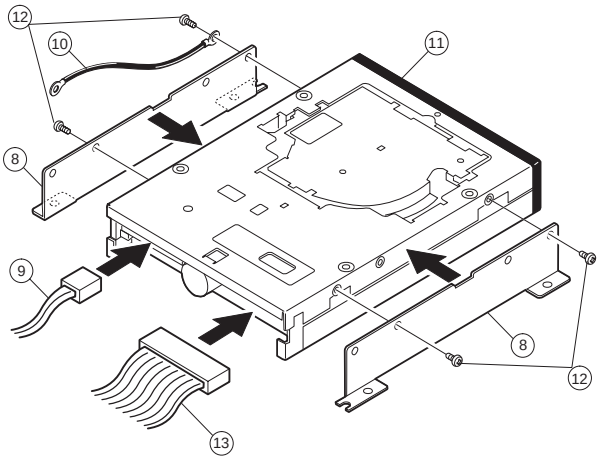
Before installing, make sure that each of the cables are connected securely.

9. Replacing the FDD unit

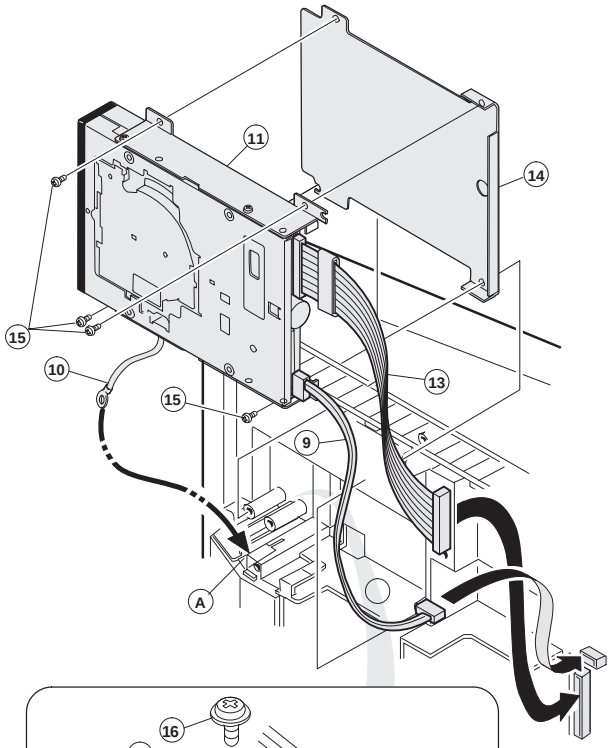
1) Remove to the Printer lid ①.
   a) Remove the screw ②.
   b) Remove the printer lid ①.
2) Remove the bottom plate ④.
   a) Remove the three screws ⑤.
   b) Remove the bottom plate ④.
3) Remove the FDD cover ⑦.

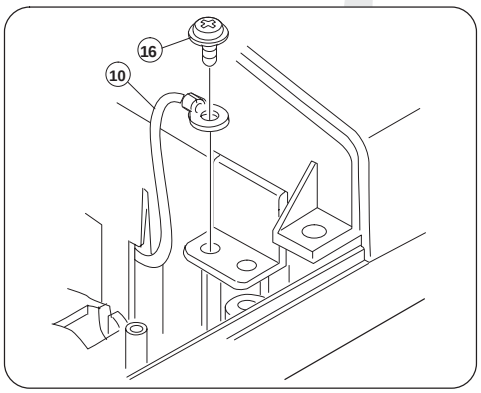


4) Install the FDD ANGLE-A ⑧.
   a) Install the two FDD ANGLE-A ⑧ and EARTH WIRE ⑩ to the FDD UNIT ⑪ with the four screws ⑫.
5) Connect the FDD CABLE ⑬ to the FDD UNIT ⑪.

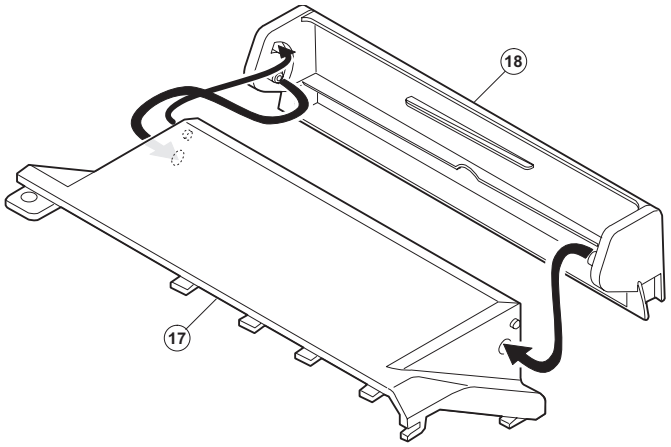


6) Connect the FDD POWER CABLE ⑨ to the FDD UNIT ⑪.
7) Install the FDD UNIT ⑪.
   a) Install the FDD UNIT ⑪ and FDD ANGLE-B ⑭ to the bottom cabinet with the four screws ⑮.
   b) Connect the FDD CABLE ⑬ to the Main PWB.
   c) Connect the FDD POWER CABLE ⑨ to the main PWB.
   d) Pass the EARTH WIRE ⑩ through the hole Ⓐ.
   e) Install the EARTH WIRE ⑩ with the screw ⑯.

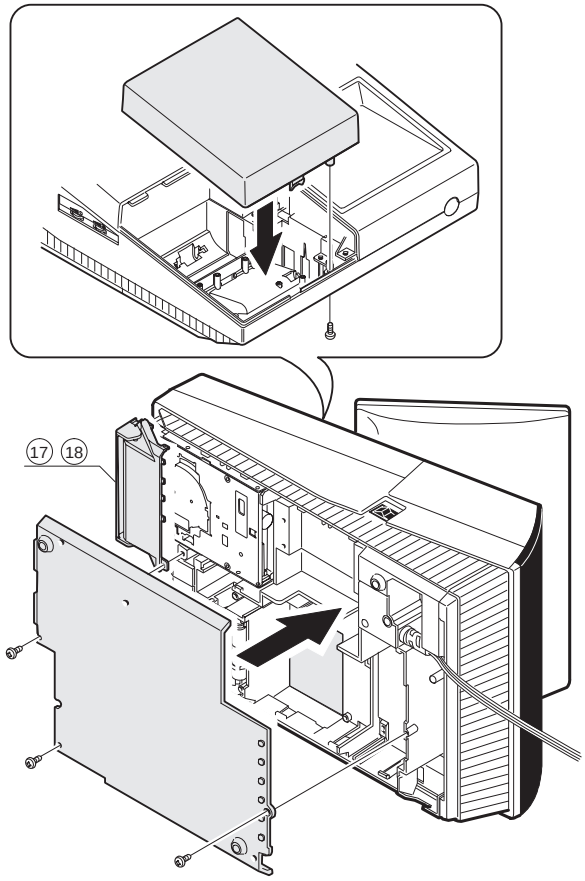




8) Install the FDD COVER ⑰ to the FDD FRONT COVER ⑱.



9) Install the FDD COVER UNIT ⑰, ⑱ to the bottom cabinet.



10. Removing the FDD unit

Install the FDD unit. In the reverse order of replacing.

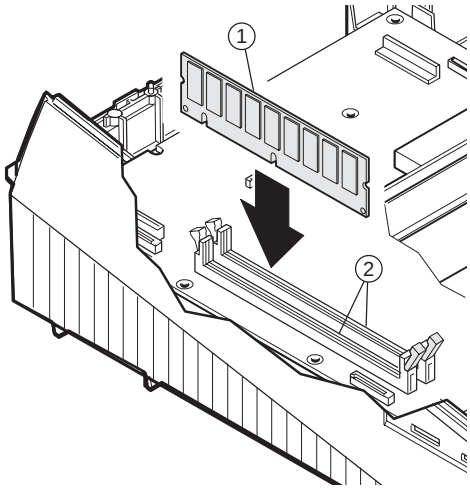
11. Extention RAM module, Memory Module: DIMM

[Device] 168 pin DIMM (128Mbytes)

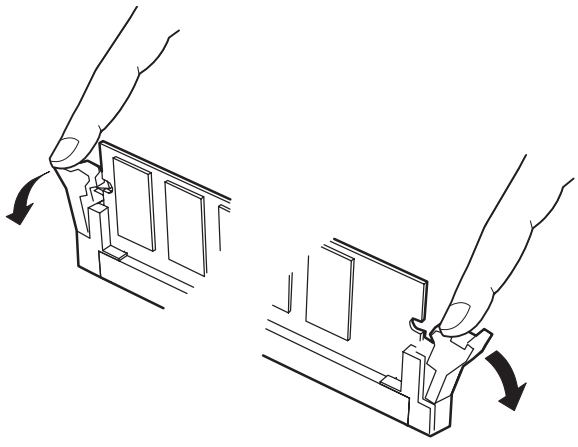
[Specification]

	168pin.DIMM
Type	SD-RAM type
Access time	PC100 (more than)
Power	3.3V
Refresh cycle	4096/64 msec.
Refresh type	AUTO
Power consumption	1400 mA (less than)

1) Remove the top cabinet.
2) Install the option D-RAM ① to the D-RAM connector: CN13 (CN14) ② on the Main PWB.
   a) Insert a D-RAM into the D-RAM connector.
   b) Push the D-RAM until the D-RAM disk is correctly locked by the arms of D-RAM connector.

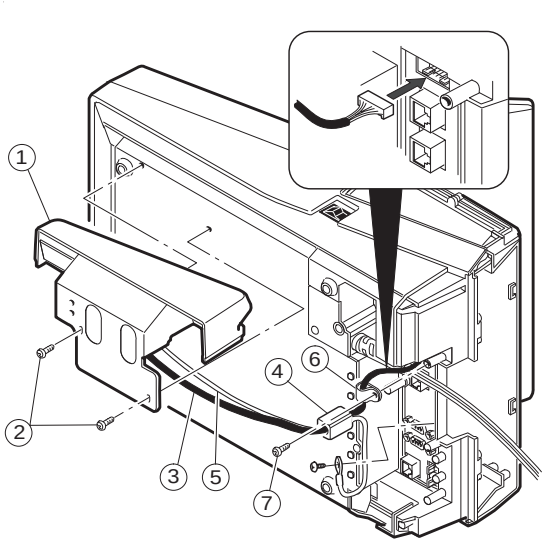


3) Remove the option D-RAM disk.
   a) Open the arms of D-RAM connector right and left.
   b) The D-RAM disk will be lifted automatically.



12. MCR UNIT: UP-E12MR2

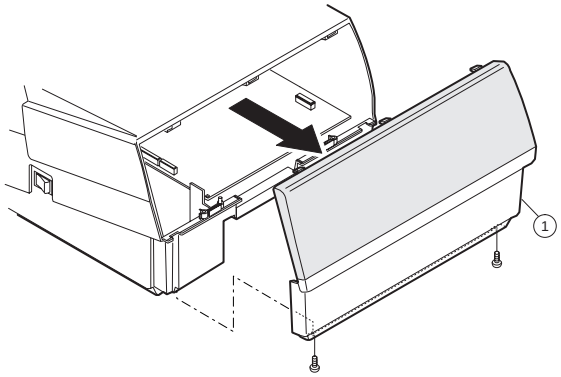
1) Fix the MCR ANGLE ① to the lower cabinet with two screws ②.
2) Connect the MCR cable ③ to the MCR connector with the cable holder ⑥, and tighter the screw ⑦ on the back of lower cabinet.
3) Install the ferrite Core ④ to the MCR cable and GND wire ⑤.



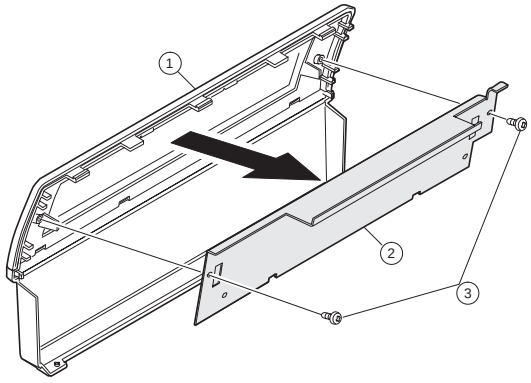
4) Fix the earth wire ⑤ from the UP-E12MR2 with the screw.
5) Attach the rubber foot in Main Unit.

13. Rear display UP-I20DP

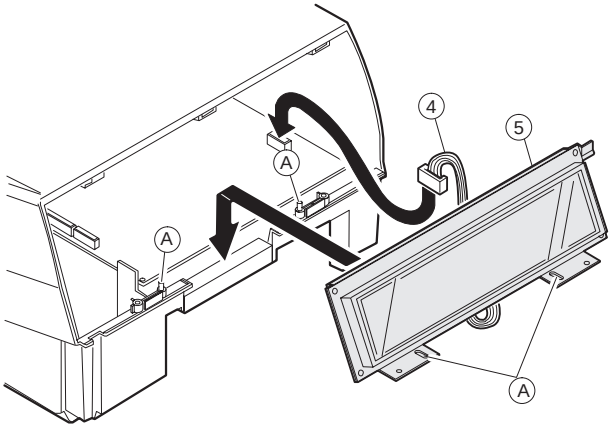
1) Remove the Display filter ①.



2) Remove the Rear cover angle ② from the Display filter ①
   a) Remove the two Screws ③.

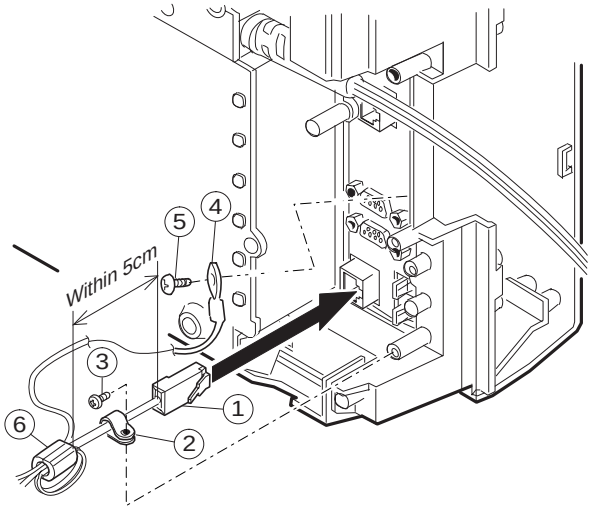


3) Connect the display cable ④ to the connector: CN22 on the Main PWB.
4) Install the Display unit ⑤ to the cabinet
   a) Align the positioning boss Ⓐ of the bottom cabinet with the angle hole Ⓐ in the display unit.



14. Pole display: UP-P20DP

1) Install the core ⑥ to the display cable ① and the display earth cable ④.
2) Connect the Display cable ① to the remote display connector on the back of the set.
3) Fix the display cable ① with the cable holder ②, and tighten the screw ③ on the back of bottom cabinet.
4) Fix the display earth cable ④ to the main chassis with the screw ⑤.



∗Cable holder ②.
Use the following type of cable holder supplied with the UP-P20DP.

- "3N" (large type)

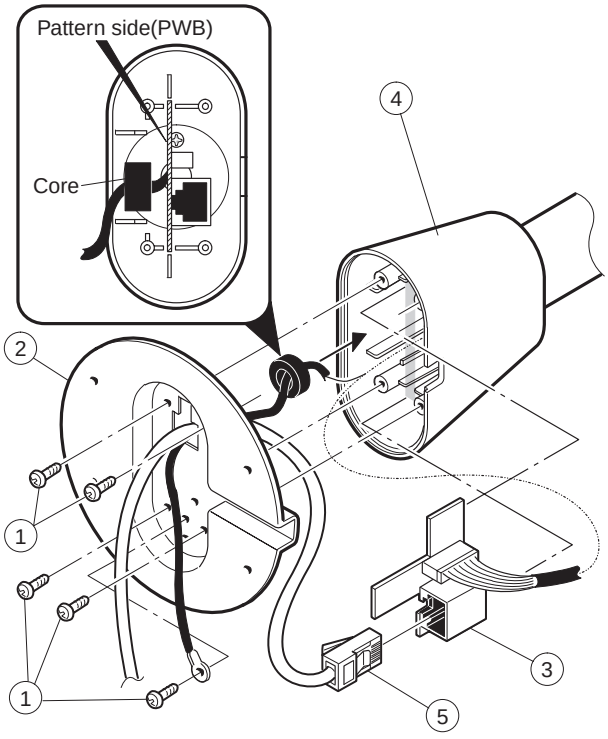
✱ How to Extend Display Pole

The pole can be extended by installing the attached pole to the standard pole.

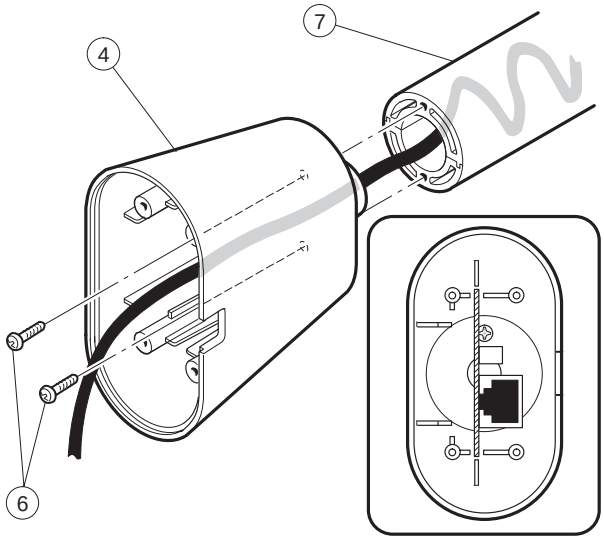
COMPONENT LIST:

No.	NAME	USE	Q'ty
⑦, ⑪	Pole cabinet	Pole extension	2
⑫	Screw (M3 × 4)	Pole connection	4
⑬	Screw (M4 × 16)	Securing the UP-P20DP to the wooden table	4
⑭	Screw (M4 × 20)	Securing the UP-P20DP to the metal table	4
⑮	Nut	Securing the UP-P20DP to the metal table	4
⑯	Display cable (S)	This display cable (S) should be used instead of the standard cable and earth wire if the UP-20DP's standard pole is removed to lower the height of the UP-20DP.	1
⑰	Earth wire (S)		1

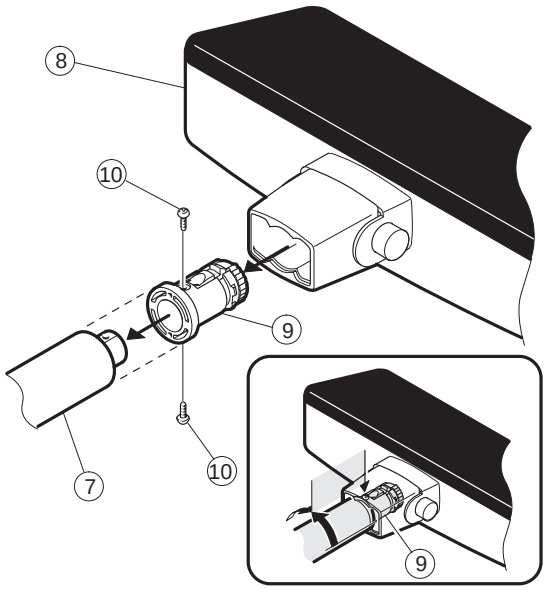
1) Remove the five screws ①.
2) Remove the Base angle ②.
3) Remove the PWB unit ③ from the Base cabinet ④.
4) Remove the display cable ⑤ from the PWB unit ③.



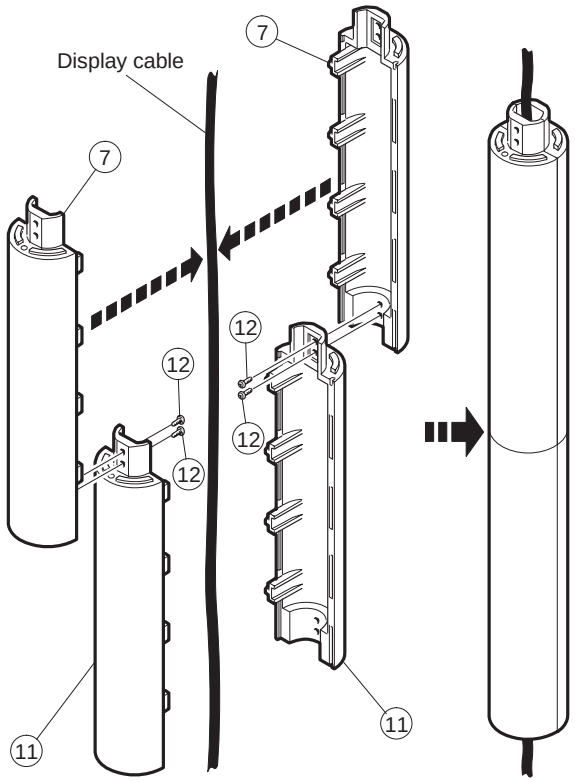
5) Remove the two screws ⑥.
6) Remove the Base cabinet ④ from the pole cabinet ⑦.



7) Pull the Ratchet ⑨ attached to the pole cabinet ⑦ out of the Display unit ⑧ by turning it as shown in Figure.
8) Remove the two screws ⑩.
9) Remove the pole cabinet ⑦ from the Ratchet ⑨.



10) Install the attached pole cabinet ⑪ to the pole cabinet ⑦ to fix it with the screw ⑫.

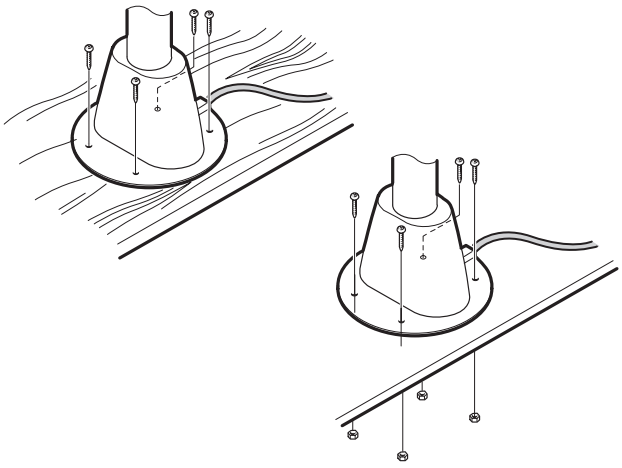


11) Install the pole cabinet ⑪ in the opposite order of the disassembly.

12) Fastening on the table:

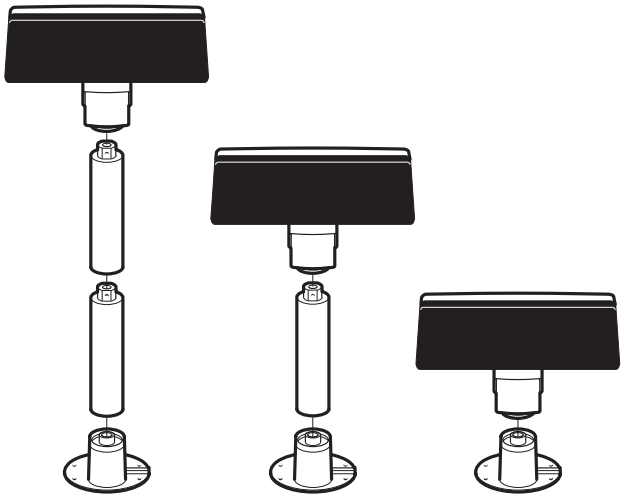
Secure the Base cabinet ② using the screw.

No.	NAME	USE	Q'ty
⑬	Screw (M4 × 16)	Securing the UP-P20DP to the wooden table	4
⑭	Screw (M4 × 20)	Securing the UP-P20DP to the metal table	4
⑮	Nut	Securing the UP-P20DP to the metal table	4



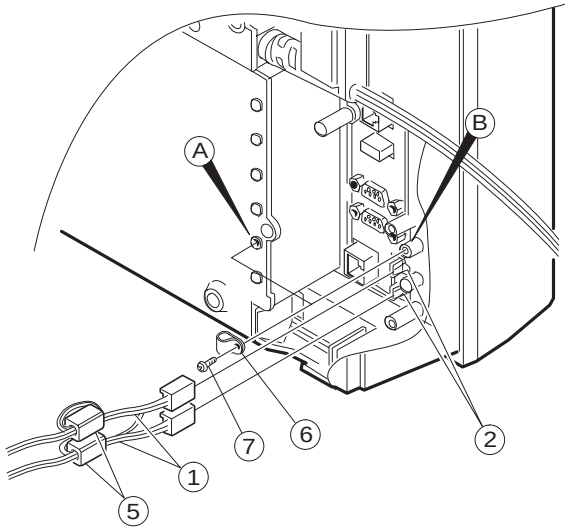
∗Lowering the height of the UP-P20DP

Remove the standard Pole and attach the Base cabinet ④ to the Ratch ⑨. At this time, replace the standard Display cable and the Earth wire with the S type cable ⑯ and wire ⑰.



15. Drawer unit: ER-03DW/04DW

1) Connect the drawer cable ① to the drawer connector ②.



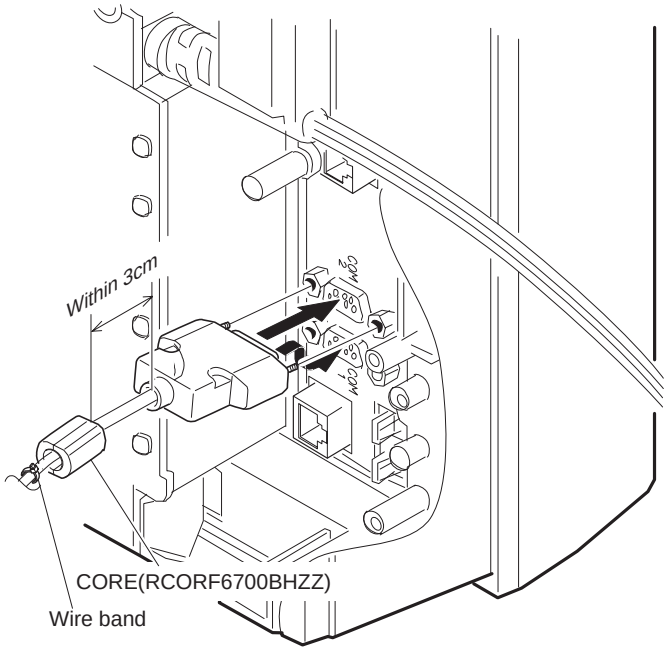
2) Install the ferrite Core ⑤ to the drawer cable.

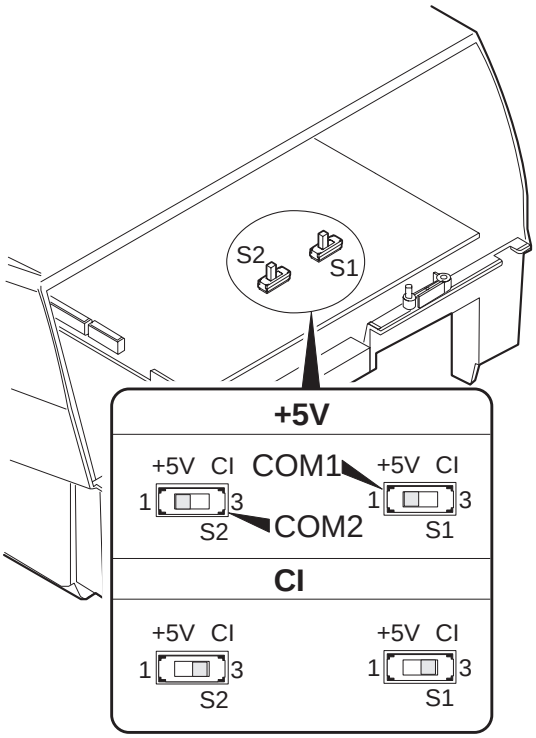
3) Fix the drawer cable ① with the cable holder ⑥, and tighten the screw ⑦ on the back of lower cabinet Ⓐ or Ⓑ.

16. COM1, COM2 and COM3/5 Connector

1) COM1 & COM2

- D-SUB 9pin Connector
- CI signal of COM1 or COM2 and +5V power supply can be switched in order to supply +5V power.



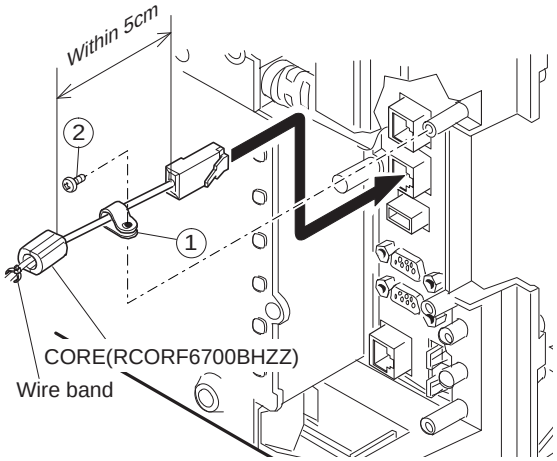


S2 = COM1: 1 = +5V
3 = CI

S1 = COM2: 1 = +5V
3 = CI

2) COM3/5

- Channels of COM port with an RJ45 connector are equipped.
- Two CABLE HOLDER ① and SCREW (M3 × 8) ② are contained in the package.



Connector Specifications*

D-SUB9

Pin No.	Signal	Function	I/O
1	CD	Data Carrier Detect	I
2	RD	Receive Data	I
3	SD	Send Data	O
4	ER	Data Terminal Ready	O
5	SG	Signal Ground	—
6	DR	Data set Ready	I
7	RS	Request to Send	O
8	CS	Clear to Send	I
9	CI/+5V	Ring Indicate/+5V	I/–

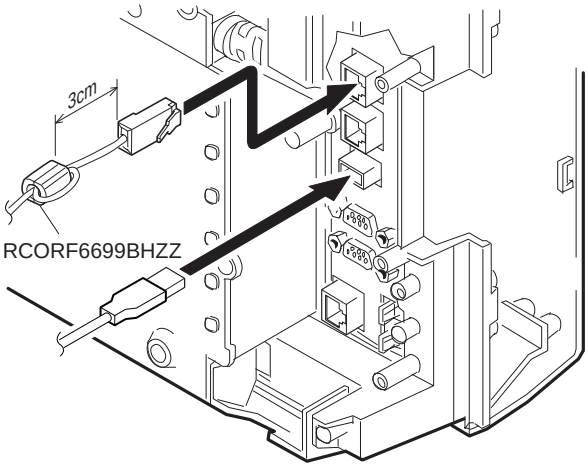
Connector Specifications*

RJ45

Pin No.	Signal	Function	I/O
1	RS	Request to Send	O
2	ER	Data terminal Ready	O
3	SD	Send Data	O
4	SG	Signal Ground	—
5	SG	Signal Ground	—
6	RD	Receive Data	I
7	DR	Data set Ready	I
8	CS	Clear to Send	I

3) LAN, USB

• LAN with an RJ45 connector and USB connector are equipped.



17. Built-in printer: UP-T80BP

1) Remove the BOTTOM PLATE ②.
   a) Remove the three SCREWs ①.
   b) Remove the BOTTOM PLATE ②.
   c) Remove the SCREW ③, CABLE CLAMP ④ and POWER SUPPLY CABLE ⑤.

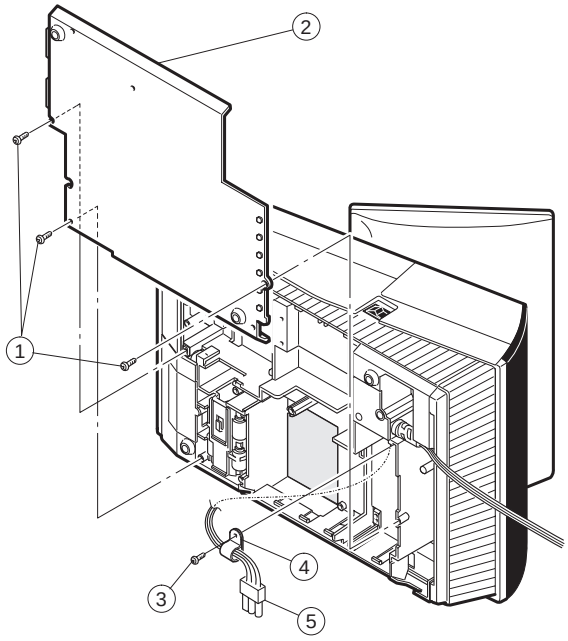
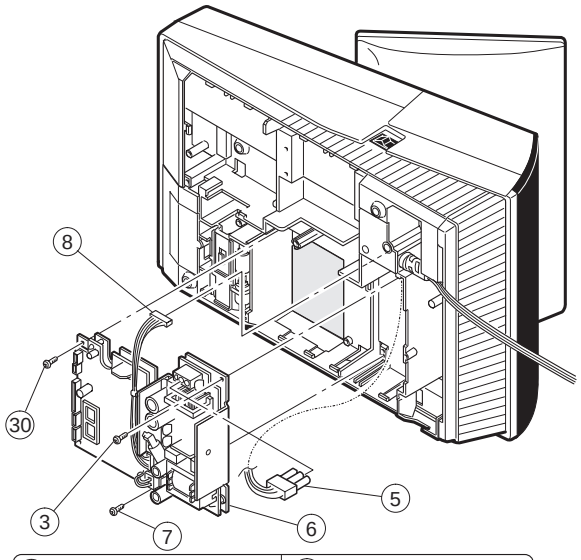


Fig. 1

2) Install the PS+CONTROL PWB ⑥.
   a) Fix the PS+CONTROL PWB ⑥ with three SCREWs ⑦, ㉚, ③
   ∗SCREW ③: Use the screw which was fixing the CLAMP ④.
3) Connect the POWER SUPPLY CABLE ⑤ to the PS+CONTROL PWB ⑥. (No. CN1)
4) Connect the I/F CABLE ⑧ of the PS+CONTROL PWB ⑥ to the MAIN PWB (No.CN109)



㉚ : XEBSD30P08000	⑦ : XHBSD30P06000

Fig. 2

5) Remove the PRINTER LID ⑨.
   a) Remove the screw ⑩.
   b) Remove the PRINTER LID ⑨.
6) Install the PAPER ROLLERs (4ea.) ⑪.

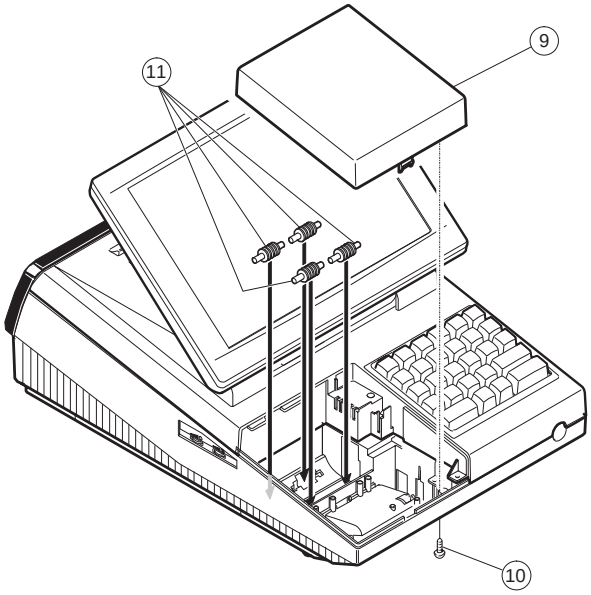


Fig. 3

7) Install the SWITCH UNIT ⑫.
   a) Fix the SWITCH UNIT ⑫ on the cabinet pawl Ⓐ.
   b) Pass the SWITCH UNIT CABLE ⑬ through the hole (B).

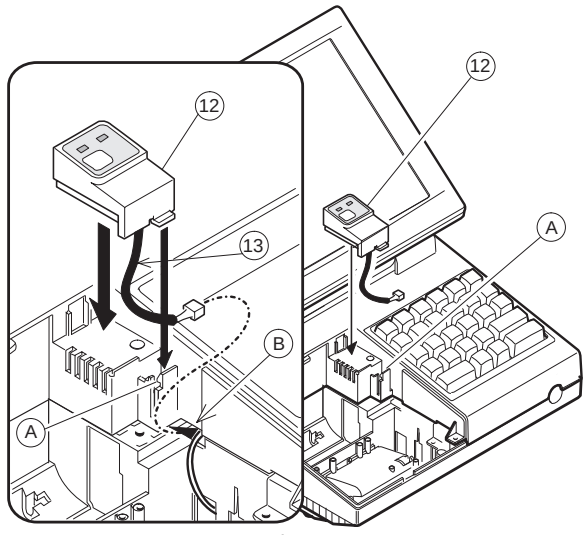


Fig. 4

8) Install the AUTO CUTTER RELAY PWB UNIT ⑭.
   a) Install the AUTO CUTTER RELAY PWB UNIT ⑭ with SCREW ⑮.
   b) Pass the AUTO CUTTER RELAY PWB CABLE ⑯ through the hole (C).

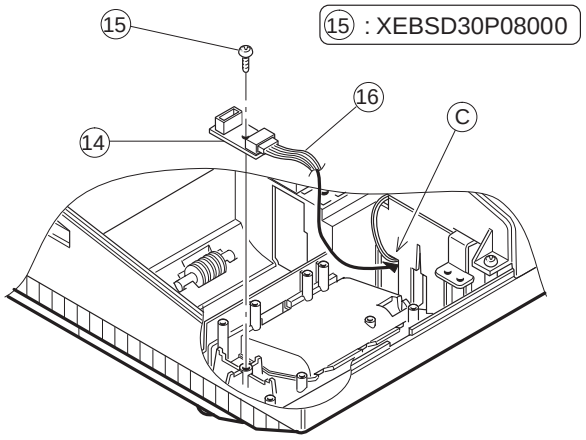


Fig. 5

9) Install the PAPER GUIDE ⑰ to the PRINTER UNIT ⑱.
10) Install the HEAD CABLE ⑲ to the PRINTER UNIT ⑱.

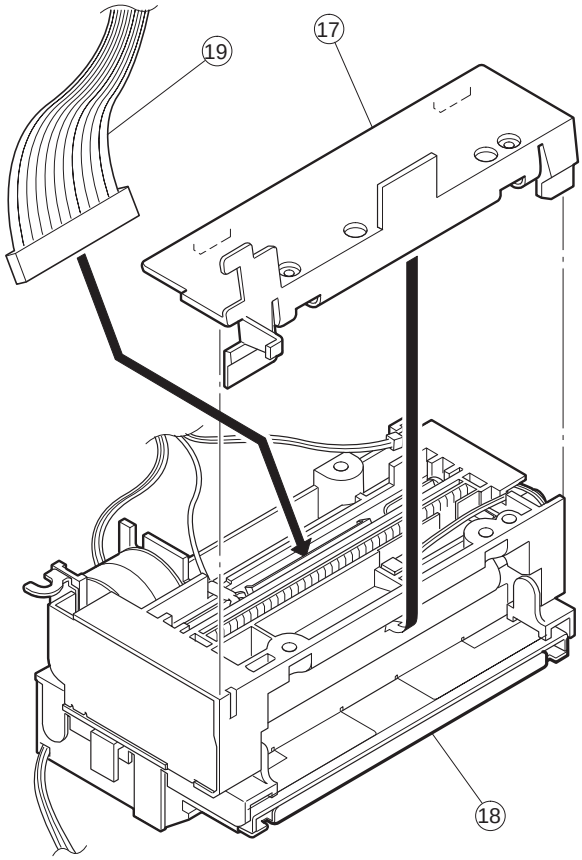


Fig. 6

11) Install the PRINTER UNIT ⑱.

a) Connect the AUTO CUTTER CABLE ⑳ to the AUTO CUTTER RELAY PWB ⑭.

b) Pass the HEAD CABLE ⑲ through the hole (C).

c) Pass the MOTOR CABLE ㉑ and SENSOR CABLE ㉒ through the hole (D).

d) Open the PRINTER UNIT ⑱.

e) Fix the PRINTER UNIT ⑱ with four SCREWs ㉓.

Fix the SCREWs ㉓ in the order of ㉓-(a) to ㉓-(d).

f) Fix the two EARTH WIREs ㉔ with a SCREW ㉕.

㉓-ⓐ : XEBSD26P06000	㉓-ⓑ : XEBSD26P06000
㉓-ⓒ : XEBSD26P08000	㉓-ⓓ : XEBSD26P08000

㉕ : XHBSD30P06000

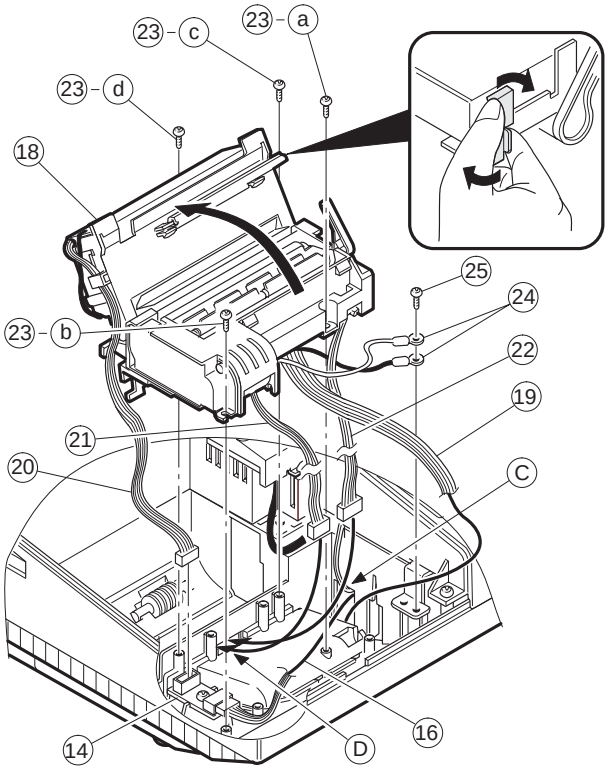
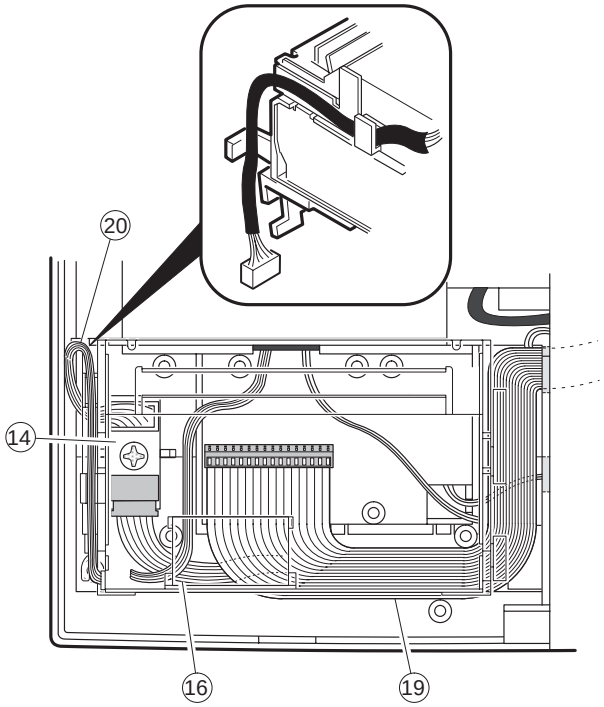


Fig. 7

12) Wiring for each cables as shown below.



13) Connect the Printer cables to the CONTROL PWB.

a) SWITCH UNIT CABLE ⑬: Connect to the CN7.

b) HEAD CABLE ⑲:Connect to the CN5.
Attach the FERRITE CORE (L size) ㉖ and CABLE CLAMP ④.
Fix the CABLE CLAMP ④ with a SCREW ㉘.

c) AUTO CUTTER RELAY PWB CABLE ⑯: Connect to the CN4.

d) MOTOR CABLE ㉑: Connect to the CN2.

e) SENSOR CABLE ㉒: Connect to the CN6.

㉘ : XEBSD30P08000

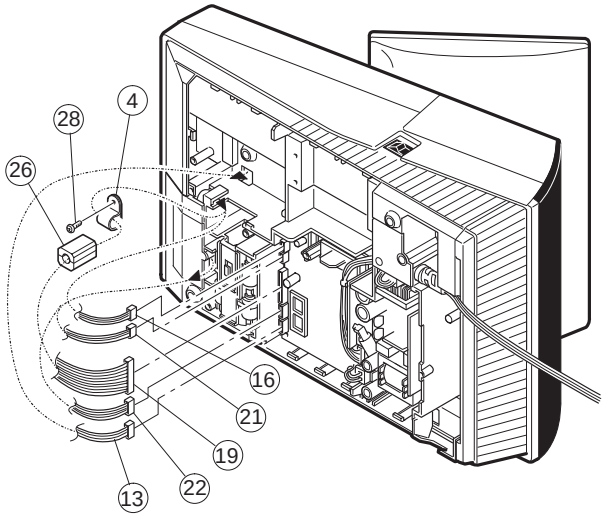


Fig. 8

14) Wiring for each cables as shown below.

a) Attach the FERRITE CORE (S size) ㉙ to the I/F CABLE ⑧.

b) Fix the I/F CABLE ⑧ and EARTH WIRE ㉛ with the CABLE BAND ㉚.

c) Set the switch: SW2 to the “MRS” position.

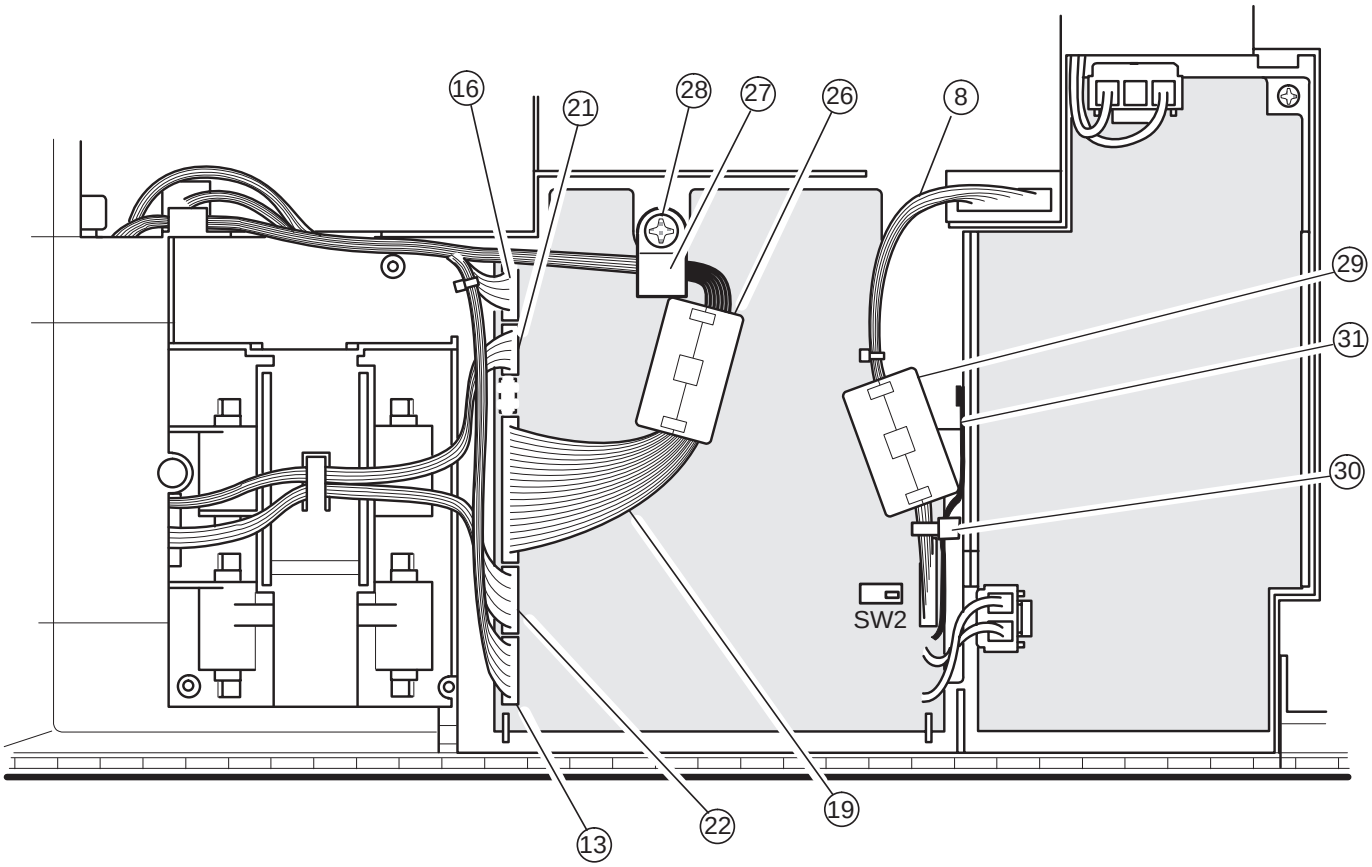


Fig. 9

15) Install the BOTTOM PLATE ②.

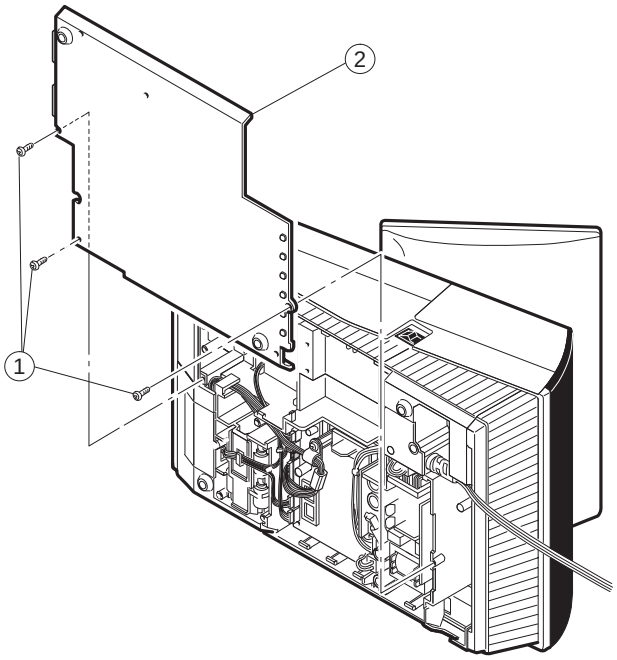


Fig. 10

16) Install the PRINTER COVER ㉙.

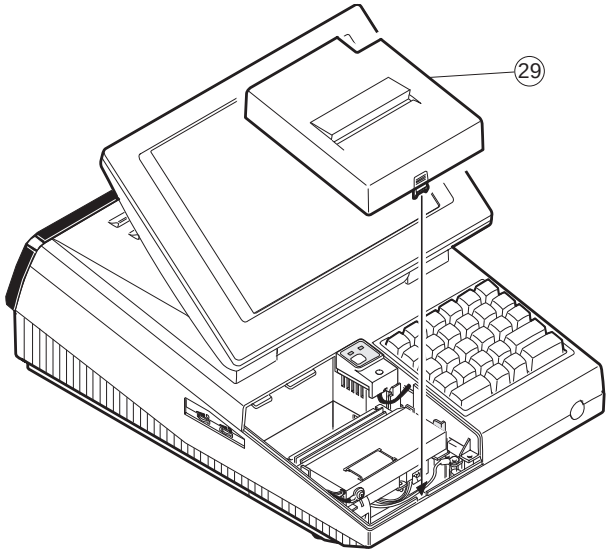
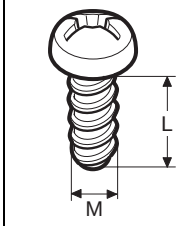
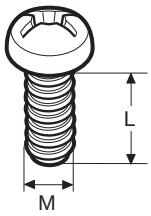


Fig. 11

1. LIST FOR SCREWs

	No.	PARTS CODE	M [mm]	L [mm]
	⑮	XEBSD30P08000	3	8
	㉚			
	㉘			
	㉓-ⓐ	XEBSD26P06000	2.6	6
	㉓-ⓑ			
	㉓-ⓒ	XEBSD26P08000	2.6	8
	㉓-ⓓ			
	⑦	XHBSD30P06000	3	8
	㉕			

2. INSTALLATION OF PAPER NEAR END SENSOR

[PARTS LIST]

No.	PARTS NAME	PARTS CODE	NOTE
1	PAPER NEAR END SENSOR	DUNTK3819BHZZ	SENSOR UNIT, FIXING SCREW
2	NEAR END SENSOR CONNECTOR	QCNCM6865RC0B	2 pin connector

1. Remove the BOTTOM PLATE .
2. Remove the PS+CONTROL PWB .
3. Solder the CONNECTOR ① to the PS+CONTROL PWB (No. CN1)
4. Install the NEAR END SENSOR UNIT ② to the CABINET , and fix it with the fixing SCREW ③.

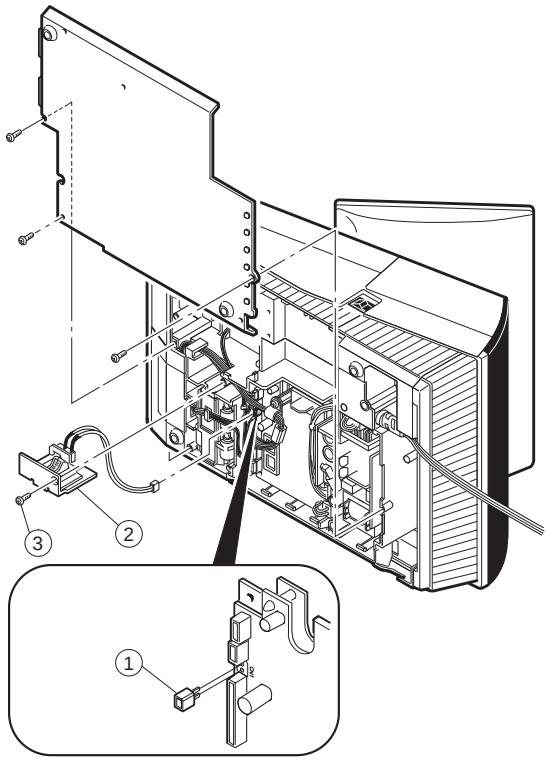
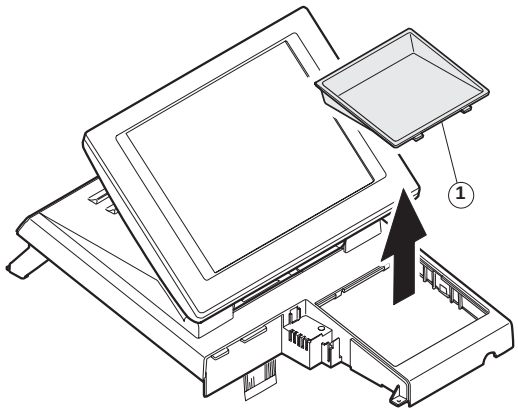


Fig. 12

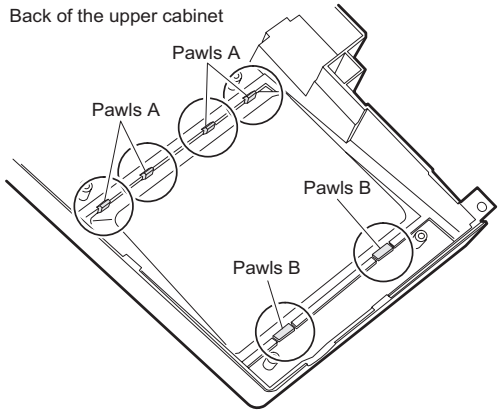
18. KEY PAD: UP-C30PK

∗Opetion for KB.
Standard for TQ, TS, KA

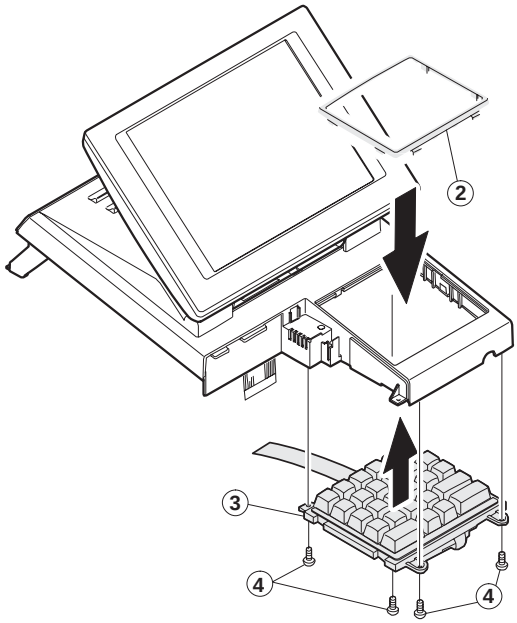
1) Remove the upper cabinet.
2) Remove the keyboard lid ① from the upper cabinet.



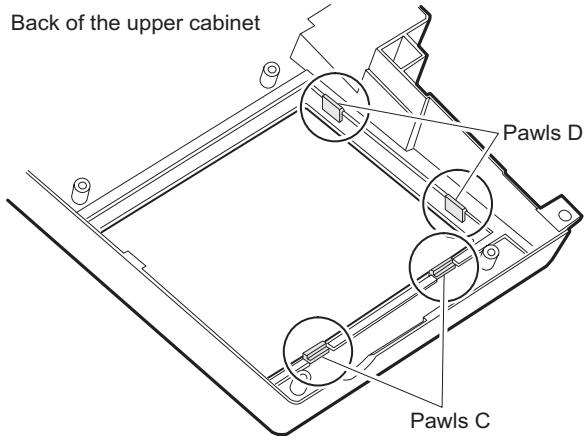
∗Keyboard lid ① is tightly engaged and hard to be removed.
When removing it, use nippers to cut off four pawls A from the back of the upper cabinet.



3) Attach the keyboard cover ② and keyboard unit ③ to the upper cabinet, and fix them with four screws ④.



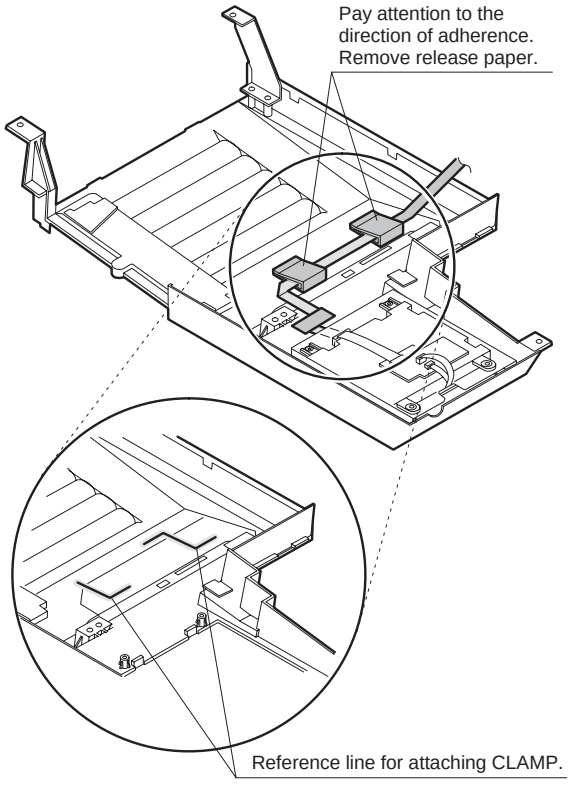
∗When attaching keyboard cover ②, engage pawls C and D securely with the upper cabinet.



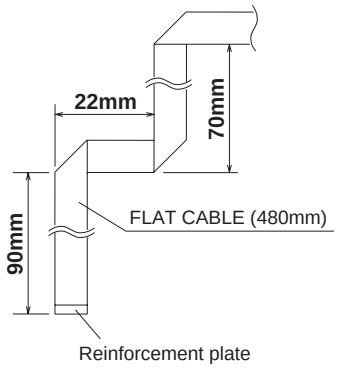
How to wire cables :

4) Run the cable along the mark-off line of the cabinet and secure it at two points with clamps.

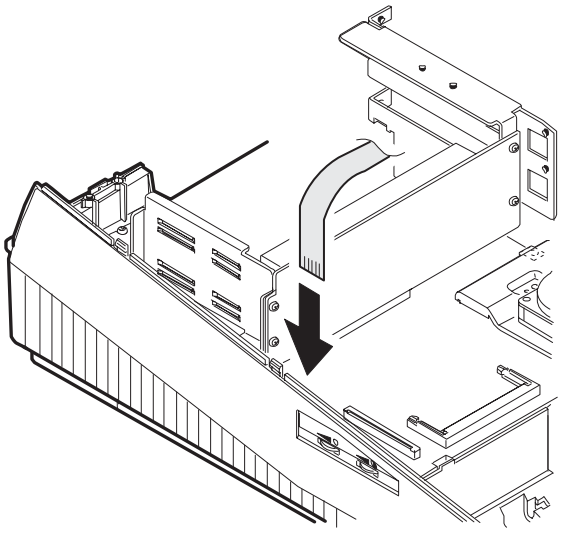
Clamp mounting location diagram



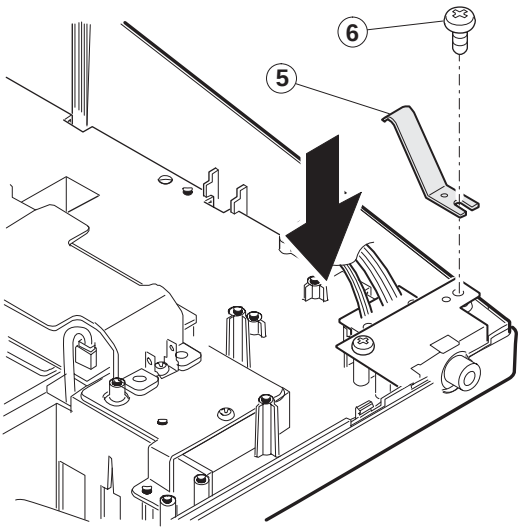
<REFERENCE FOR FOLDING FLAT CABLE>



5) Connect the cable of the keyboard unit ③ to the main PWB connector CN23.



6) Attach the earth spring ⑤ to the lower cabinet with the screw ⑥.



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